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1916

HENDERSON'S
WHEATS
GRASSES
CLOVERS

ETC., ETC.

FOR
FALL SOWING



PETER HENDERSON & Co., 35 AND 37
CORTLANDT ST., **NEW YORK**

HENDERSON'S SUPERIOR WINTER SEED WHEAT

GROWN FROM PEDIGREE STRAINS

It costs almost as much to lay down an acre of Wheat that yields only 15 bushels per acre as one that will yield from 35 to 50 bushels. The first scarcely returns the cost of the investment while the latter yields a handsome profit. In order to attain such results, sow Henderson's Superior Seed Wheat, which is grown especially for seed purposes, from cross-bred, select pedigree strains of undoubted superiority.

On pages 2, 3 and 4 we offer selected re-cleaned seed Wheat from our crop of 1916, which is now ready for delivery.

The prices at which the different varieties are offered are those ruling August, 1916, but they are subject to the fluctuations of the market.

Delivery will be F. O. B. New York. Bags extra.

Peter Henderson & Co. give no warranty, express or implied, as to description, quality, productiveness, or any other matter of any Seeds, Bulbs or Plants they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are at once to be returned.



NEW WHEAT
"Jones' St. Louis Grand Prize"

Jones' St. Louis Grand Prize Wheat (Beardless)

This grand new Wheat has become a standard "rough and ready" variety, being equally at home on all soils, thriving on light, sandy, gravelly, clay loam or river bottom lands, and it is as nearly fly proof as it is possible for a Wheat to be. It is a strong, healthy grower, with dark, wide foliage, starting into growth among the earliest in spring. Straw medium tall, very stocky and thick walled; heads square and compactly set from base to tip; kernels short but very large and plump; color medium dark red and of good milling quality. St. Louis Grand Prize Wheat has made a good record

everywhere. Mr. Jones says his field of it in northern New York was noted as the best field of Wheat in all of that section. Just as even as a floor. Every head standing erect and not a straw out of place. (See cut.)

Price, \$3.00 per bushel; 10-bushel lots, \$2.90 per bushel.

ST. LOUIS GRAND PRIZE BREAKS ALL RECORDS

"I had wonderful success with your St. Louis Grand Prize Wheat. The seed was sown late Oct. 15th and the yield was 51¼ bushels of extra fine grain per acre, thus breaking all wheat records in South Missouri." F. S. WHITE,
Editor of The Ozark Countryman, Springfield, Mo.

Jones' Red Wave (Beardless)

After several years' trial this grand Wheat has fully maintained the good opinion expressed when first sent out. Customers in all winter Wheat growing sections know that the Jones' Wheats wherever sown have made a good record, and will be pleased to hear of this fine Bald Red variety. It is a cross between early Red Clawson and an unnamed crossbreed of Russian parentage. All progressive farmers should give this sort a trial, as seed of this is now in great demand, and those who are fortunate enough to have a field in 1915, will find it to be a profitable investment. It is a bald Brown-chaff, dark, medium long, large grain; heads very long and broad, filled

with medium, long, large, hard, dark kernels, rich in gluten. Straw, golden; above medium height, stocky, very strong, thick walled and not liable to go down; heads slightly leaning, hence not liable to sprout in the field. This variety gave a yield of 49 bushels and 2 pounds per acre in a field, the balance of which was sown to Dawson Golden Chaff that produced only 27 bushels per acre. A plot on trial grounds 1¼ by 2 rods square produced at the rate of 68 bushels and 5 pounds per acre.

Price, \$2.75 per bushel; 10-bushel lots, \$2.65 per bushel.

Purchaser pays transportation on Farm Seeds.

ORDER SHEET FOR FARM SEEDS

PETER HENDERSON & CO. give no warranty, express or implied, as to description, quality, productiveness, or any other matter of any Seeds, Bulbs, Roots or Plants they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are at once to be returned.

Peter Henderson & Co.
35 and 37 Cortlandt Street, New York

Parcel Post Zone
from N. Y. City

SEND BY

State if wanted by Express (and Company); Freight (and Route); Steamer (and Line); or Parcel Post.
Add postage for Goods wanted by Parcel Post.

To (Name)

P. O. Box, Street
or Rural Delivery

Post Office

County; State

Station or Exp. Office

(Only if different from P. O.)

Superintendent or Farm Manager

(That we may register for Catalogues.)

Date, 1916

AMOUNT ENCLOSED

\$

(State whether Cash, Draft, P. O. Order,
Express Money Order or Stamps.)
(If goods are wanted by express, C. O. D.,
25 per cent. of the amount must
accompany the order.)

RECORDED

and entered for following Catalogues:

R and

By

We make no charge for packing or cartage of goods to any railroad station, steamship line or express office in New York City.
Farm seeds we do not deliver free—purchaser pays the transportation charges. If wanted by Parcel Post add postage according to Zone rates. Your Postmaster will inform you what Zone you are in reckoned from New York.

CLOTH BAGS only we charge for, and these at cost, viz.: 1 peck, 10c.; ½ bushel, 12c.; 1 bushel, 15c.; 2 bushel, 25c.

ALL GRASS SEED BAGS, excepting bags for Timothy and Clover, ARE FURNISHED FREE.
SPECIAL PACKING for FOREIGN SHIPMENTS, in tin-lined cases or double sacks, charged at cost.

| QUANTITY | ARTICLES | PRICE |
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| QUANTITY | ARTICLES | PRICE |
|----------|-------------------------|-------|
| | Amount brought forward, | |

SILVER SHEAF LONGBERRY RED (Bearded)

The most perfect Longberry Red Wheat grown, and will make a sensation among wheat growers and millers as soon as known. This marvel originated from a cross between the well-known American Bronze and a cross from Lancaster and a seedling Longberry. It is one of the hardiest of all wheats, a strong, healthy grower and can be sown very late. If sown early, $1\frac{1}{2}$ bushels of seed per acre will be enough on strong soil. Straw of light yellow color, medium tall, thick-walled and strong; head long, wide and full; chaff thin and silvery-white; grain large, dark and flinty, and nearly as long as rye kernels. It will command the highest market price of any Longberry yet grown, and will be the leading fancy milling wheat of this country. (See cut.)

Price, \$2.50 per bushel. 10-bushel lots, \$2.40 per bushel.

JONES' BEARDED LONGBERRY (No. 1)

We are confident that this variety will prove to be the most profitable Longberry yet known—it is the result of experiments in crossing this type covering several years—and we feel that it will rapidly displace the old Longberries now no longer profitable on account of weak vitality and light yield, although their quality is the standard by which all other sorts are judged. JONES' BEARDED LONGBERRY (No. 1) is a grand variety and one of the most productive, hardy and profitable sorts ever sent out. It has made a record of $54\frac{1}{2}$ bushels per acre. It has a sturdy, wiry straw of good length, not liable to lodge even on very fertile soil; heads long, wide and exceptionally well filled, bearded and of a rich brown shade; kernels large and long, of an attractive blending of red



GOLD COIN.

PRIDE OF GENESEE (Bearded)

One of the most productive varieties, having a long, well-filled head, and the fact that it will give a reasonably good crop on land so poor that common sorts would be a failure, cannot fail to make it a popular sort, as the head does not decrease in proportion to the straw, being large and well filled on a very short, light growth of straw.

Price, \$2.50 per bushel; 10-bushel lots, \$2.40 per bushel.

CLAWSON LONGBERRY (Beardless)

This grand cross-bred Longberry was produced from the same blood that bore the famous Red Clawson crossed with Longberry stock. It resembles, in some respects, Red Clawson in the field, but is a stronger grower and more prolific stooler, and has sturdy, wiry straw. Heads long, wide and full; chaff, brown and free from beards; grain, dark amber of the finest quality, large, long, and of true Longberry type. Like its parents, it delights in strong clay loam, and on such soil, with thorough preparation, it will often yield fifty bushels or more per acre. It is largely grown by some of the best wheat growers, by whom it is highly recommended. Sow $1\frac{1}{2}$ bushels per acre.

Price, \$2.60 per bushel; 10-bushel lots, \$2.50 per bushel.

GOLD COIN (Beardless)

A very popular wheat that the increasing demand for the seed would indicate is a most satisfactory variety over a large extent of territory. It is unusually productive, having yielded over 60 bushels per acre—while 50 and over is not unusual—and even on large acreages it seldom runs under 40 bushels per acre.

The straw is very stiff and does not lodge even on the richest land. The head is long and compactly filled with choice white grain, frequently having five kernels abreast. (See cut.)

Price \$2.50 per bushel; 10-bushel lots \$2.40 per bushel.

We shall be pleased to make Special Prices (where possible) to buyers of large quantities of Grain or Grass Seed. WRITE US

TWO GRAND
WINTER WHEATS

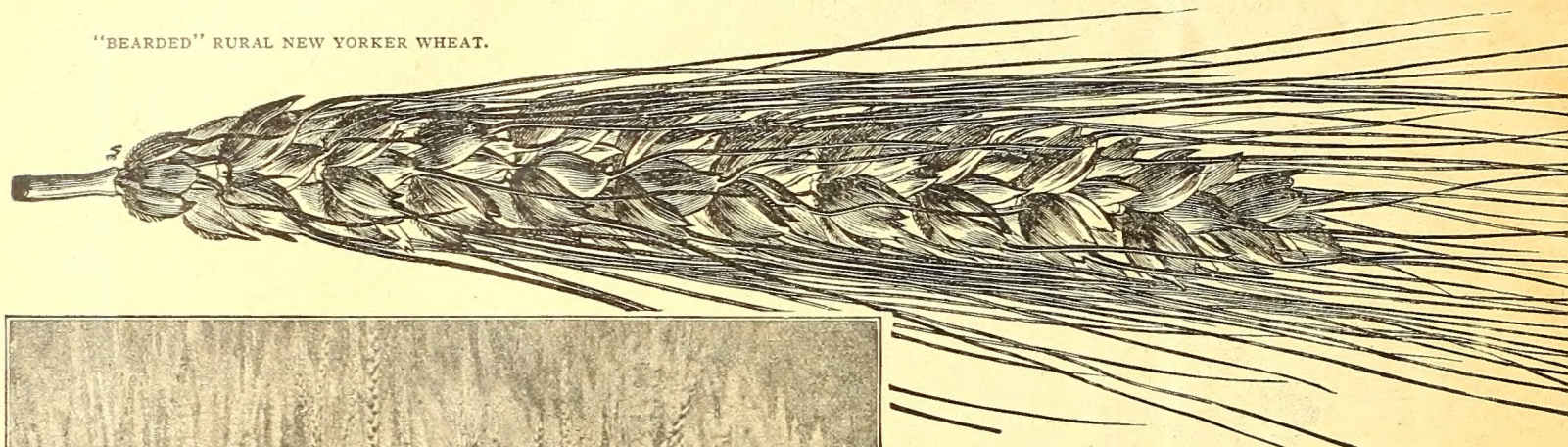
Rural New Yorker

BEARDED
AND BEARDLESS

These are both the result of upwards of twenty years' thoroughly scientific crossing and careful selection at the hands of the late Mr. E. S. Carman, the well-known editor of the *Rural New Yorker*, and raiser of many of the most valuable agricultural introductions of

recent years. These two varieties have been selected from hundreds of crosses and varieties as superior in all desirable qualities. They have now been grown in most wheat-growing sections, and most flattering testimony has been received by us regarding their merits.

"BEARDED" RURAL NEW YORKER WHEAT.



"Bearded" Rural New Yorker (NUMBER 57)

has heavily-bearded heads which are beautifully symmetrical, being pointed at the tip, broad in the middle, and tapering toward the stem. The straw is unusually tall and strong and stools freely, frequently having 35 to 40 stalks from a single grain. The heads are compact, averaging three kernels to a spikelet or "breast," and ten breasts to a side. The kernels are of medium size and of an attractive color, between the so-called "red" and amber, possessing the requisite degree of hardness for the production of the finest grade of flour, and is much sought after by millers. The chaff is clear white, with a trace of velvet sufficient to make it difficult for the green fly to attack it, and the heads do not mildew as the full velvet chaff varieties are liable to do. (See cut.)

Price, \$2.50 per bushel; 10-bushel lots, \$2.40 per bushel.

"Beardless" Rural New Yorker (NUMBER 6)

This beardless variety is a hybrid between Rye and Armstrong Wheat, though all traces of Rye have disappeared and it now appears a handsome, beardless Wheat. It succeeds and produces heavy crops on poor, thin land, where Wheat could not be successfully or profitably grown and it also has extreme hardiness to recommend it. When first raised, some years ago, the top of the culms was downy with Rye culms. This characteristic could not be fixed, so that for this variety the culms having no down were alone selected. The gold-colored straw is very thick and strong, easily supporting the heavy grain without breaking. The large amber kernels are placed four to a breast, eight breasts to a side, with long symmetrical heads having a brown shaft. (See cut.) One of our growers says:

"It stools as strong as any wheat I ever saw. It had a vigorous, healthy growth all the season, and stood well without lodging. It is very hardy."

Price, \$2.50 per bushel; 10-bushel lots, \$2.40 per bushel.



"BEARDLESS" RURAL NEW YORKER WHEAT.

Henderson's Superior Seeds are procurable only from us direct—we do not supply through dealers

Henderson's NEW INVINCIBLE WINTER RYE

INTRODUCED BY PETER HENDERSON & CO. LAST SEASON WITH EXCELLENT RESULTS

A VIGOROUS GROWER

Yields a satisfactory crop of straw—and
:: :: BIG CROP OF GRAIN :: ::

THE HARDIEST AND EARLIEST GRAIN CROP GROWN

This new Winter Rye is of European origin and is a great improvement on the older varieties at present in cultivation. The ear is long, broad and compact, holding on an average seventy very large, plump, heavy grains of splendid quality. The straw is of medium height, of remarkable strength, consequently it stands erect and does not easily lodge. It is quite distinct from all other sorts, the straw having, when green, a pronounced blue bloom. Owing to its full, broad heads, strong straw with large, thick, dark foliage, a field of Invincible has an impressive appearance.

We would recommend every grower of Rye to give it a trial. As the quantity of seed is limited, early orders are requested. Write for sample.

(See cut.) Price, 75c. per peck; \$2.50 per bushel of 56 lbs.; 10-bushel lots, \$2.40 per bushel.

GIANT WINTER RYE

A remarkably heavy cropping Rye, having in fair tests outyielded many other varieties both in straw and grain. The heads average six inches in length and are filled from end to end with plump, medium-sized grains. The straw is of uniform length, strong and of extraordinary stiffness, resisting severe wind and rain storms to a remarkable degree without lodging. Price, \$2.10 per bushel of 56 lbs.; 10-bushel lots, \$2.00 per bushel.

WINTER RYE

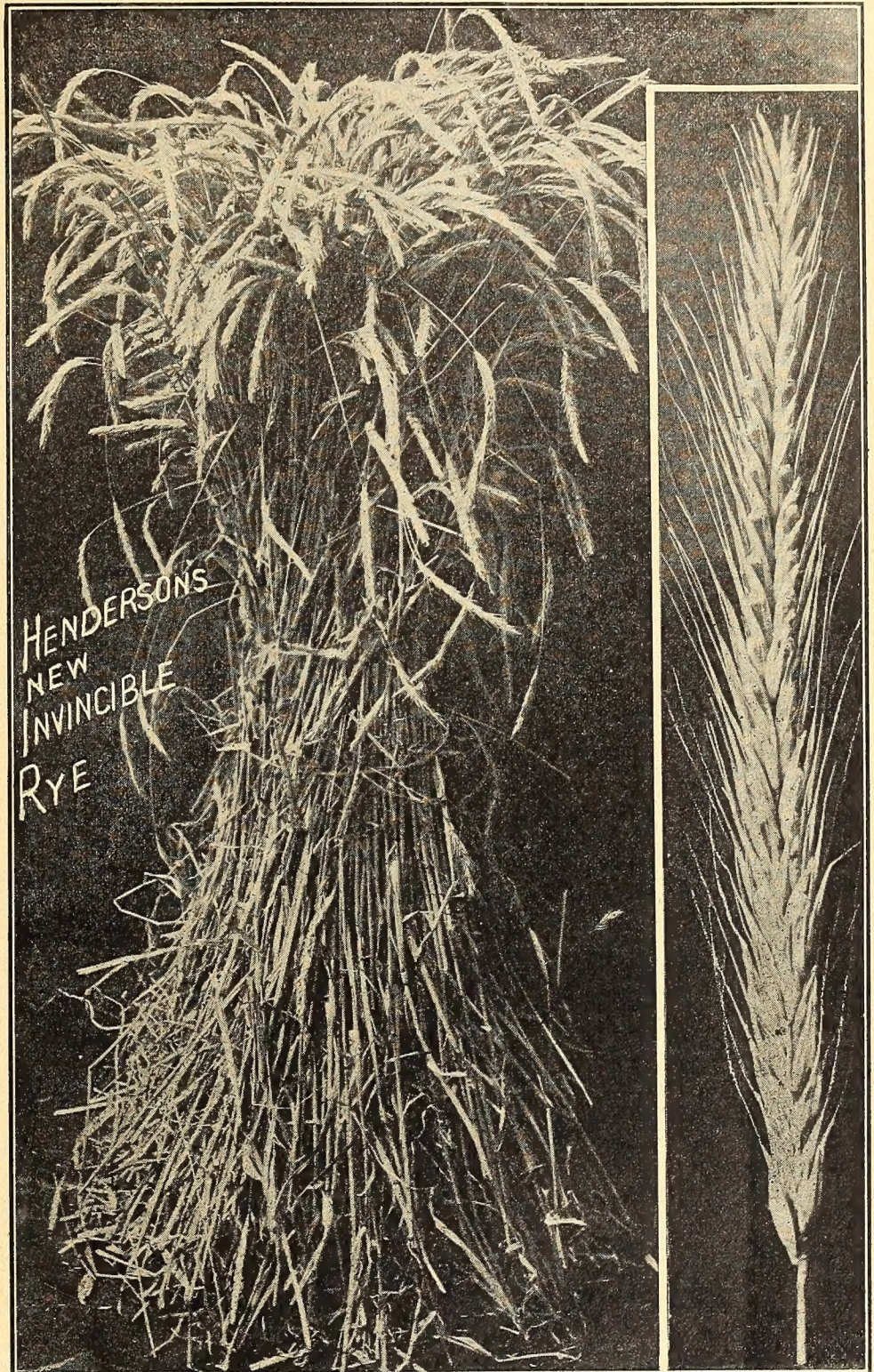
The variety most commonly cultivated, whether sown for grain, straw or cutting green. Price, \$1.90 per bushel of 56 lbs.; 10-bushel lots, \$1.80 per bushel.

THOUSANDFOLD WINTER RYE

One of the most productive sorts in cultivation; the straw is tall and strong, with long, heavy heads, and stands up well. Especially recommended where Rye is grown more for the straw than the grain. Price, \$2.00 per bushel of 56 lbs.; 10-bushel lots, \$1.90 per bushel.

EXCELSIOR WINTER RYE

A variety from Vermont, that has never failed to yield at the rate of from 40 to 50 bushels per acre. With the originator, a four-acre field yielded 52 bushels to the acre. Price, \$2.00 per bushel of 56 lbs.; 10-bushel lots, \$1.90 per bushel.



Rye is a valuable crop for either soiling, green fodder, straw or grain. It is largely used by farmers to seed down with in the fall, and is considered preferable to Wheat for this purpose, as it protects the young grass and matures two weeks earlier in the summer than Wheat. It is also extensively used for fall pasture when sown early and for cutting green in late spring and early summer, but when wanted for cutting it is best sown with the Sand or Winter Vetch.

On light sandy soils where other cereal crops would be a failure, rye can be depended upon to produce fair returns. Because of its great hardiness and ability to grow upon poor land, rye is the best crop to plow under to increase the humus in the soil; but this must be done early in the spring before the rye has made much growth, otherwise it would exhaust the moisture in the soil, to the detriment of succeeding crops. A field of rye which has made good growth in the fall is often pastured with cattle or sheep for a time, and also in the spring, moderately. The stock is then removed and the rye allowed to ripen. Rye is the only cereal crop, which may be thus treated without great injury.

Sow (if alone) from 1½ bushels to 2½ bushels per acre.

We are always pleased to hear from our farmer friends and offer any advice free on subjects connected with farm crops, etc.

HENDERSON'S RECLEANED Grass and Clover Seeds FOR FALL SOWING

ON PAGES 6 TO 13 INCLUSIVE WE OFFER A SELECTED LIST OF GRASS, AND GRASS AND CLOVER SEEDS, ETC., FOR FALL SOWING

When Grass seeds are sown in the fall, the best time being the latter part of August or the early part of September, the benefits of a warm soil, copious rainfall, and lessening temperature are to be had. These conditions insure a better germination, a higher percentage of the survival of the Grasses which start into growth, and a stronger and healthier growth. Because of these conditions the crop of weeds which always appears in freshly cultivated land will always be lighter than in the spring.

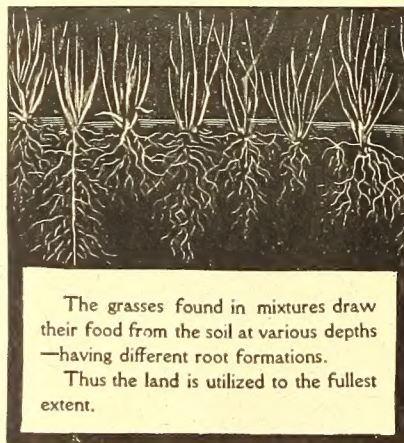
Our stocks are re-selected each year, thoroughly re-cleaned by the most improved seed-cleaning machinery in America, and we therefore invite you to favor us with your orders for the season's supply.

THE PRICES QUOTED ARE F. O. B. NEW YORK. THEY ARE SUBJECT TO THE FLUCTUATIONS OF THE MARKET

Henderson's Special Grass Seed Mixtures

FULLY DESCRIBED ON PAGES 7 TO 10 INCLUSIVE

It has been fully demonstrated by the careful trials conducted by the Agricultural Experiment Stations in various parts of the country that good pasturage, and good hay crops can be best secured by sowing Grass seeds in mixtures. Pastures seeded naturally are always found to contain many varieties of Grasses growing and flourishing side by side without detriment to each other, and attaining their maximum of growth at different periods of the year. It is to this notable characteristic that such pastures furnish continually an abundant bite, when meadows and pastures composed of but a few varieties are brown and bare.



Another great advantage in sowing Grass seed mixtures is that full use is made of the land. The various Grasses being of different habit, seek the food they require at unequal depths in the soil, some being shallow-rooted in habit and some deep-rooted; thus every strata of soil is utilized, and a far greater number of plants grow and flourish in a given space. We have been for years well aware of the above facts, through our own exhaustive experiments and studies, and no better meadows or pastures can be found than those laid down with our various Grass seed mixtures.

These famous mixtures have seeded thousands of acres of meadow and pasture land for progressive farmers and stock raisers in various parts of the United States, with most gratifying results. They are well-balanced combinations of a number of native and acclimated foreign Grasses and Clovers, blended and improved upon during exhaustive trials under widely varied conditions, soils and localities for several years, until practically perfect, our aim being to produce, under the extremes of the American climate of heat, drought and cold, a PERMANENT, dense and deep-rooting turf that would yield year after year the maximum quantity of forage. These Grasses are of superior quality, inviting, sweet and nourishing, whether used as hay or pasture. That we have been successful is attested by the numerous letters of praise for these Special Grass Mixtures that we

have received from the users, and the tributes to their merits published in many of the agricultural journals. Space permits us to print extracts from but a few of these encomiums.

A Description of Soil and Locality should be given when ordering. In the preparation of these mixtures for permanent pasture, the greatest care is exercised in selecting such varieties as are suited to the soil to be sown and are likely to realize the object in view. To facilitate this, a description of the soil and climate, and the purpose for which sown, and if with or without a grain crop, should accompany each order.

FULL DIRECTIONS FOR SOWING ENCLOSED IN EVERY BAG.

Price, \$2.75 per bushel of 14 lbs.; 50 bushels @ \$2.65; 100 bushels @ \$2.60.

PROGRESSIVE FARMERS TELL OF THEIR SUCCESS

"Please quote me price on 120 bushels of Henderson's Special Grass Mixture for Permanent Hay. As you know I have been using this Special Mixture for several years and have had remarkable success with it. My intention is to have 120 acres in this grass by next fall. I am going to sow this 120 bushels on 40 acres." Feb. 5th, 1913. H. L. BOWEN, Glasgow, Ky.

"I purchased Henderson's Special Mixture of Grasses for Hay and Pasture from you last season with very satisfactory results."

H. FILMORE LANKFORD, Princess Anne, Md.

"Last fall I seeded a 10-acre field with Henderson's Hay and Permanent Pasture Mixture, and now have a fine stand of grass." April 1st, 1913. ALLAN MACLANE, Baltimore, Md.

"The Henderson Permanent Grass Seed Mixtures I got of you last fall proved very satisfactory, also the Alfalfa Seed." Aug. 18th, 1913. C. E. TONEY, Oakville, Tenn.

"I got two bushels of your Mixed Grass Seed for Hay and Pasture, and we cut two crops last year, and it has been very dry here this summer, but will cut two crops this year. Will talk it all I can." L. H. HURD, Franklin, N. Y.

"I have shown the neighbors here what can be done with your Special Grass Seed Mixtures. I had the only pasturage here last summer during the drought." Sept. 8th, 1913. MISS JULIA L. MAURAN, Hope, R. I.

MIXED PERMANENT CLOVERS

(10 POUNDS REQUIRED FOR 1 ACRE)

Should be sown in addition to the above Grass mixtures, but on

account of greater weight the Clover should be sown separately, and in cold latitudes, in the spring. This mixed Clover comprises White, Mammoth Perennial or Cow Grass, Alsike, etc.

Price, 35c. pound; \$3.25 10 pounds; \$30.00 100 pounds.



A Pennsylvania Field of HENDERSON'S
SPECIAL GRASS MIXTURE for
Hay and Permanent Pasture

HENDERSON'S SPECIAL GRASS SEED MIXTURE FOR

Hay and Permanent Pasture

It Produces Wonderful Hay Crops and Luxuriant Pasture
Maintaining Its Cropping Qualities Twenty Years or More

This famous mixture has seeded thousands of acres of meadow and pasture land for progressive farmers and stock raisers in various parts of the United States, with most gratifying results. It is a well-balanced combination of a number of native and acclimated foreign Grasses and Clovers, blended and improved upon during exhaustive trials under widely varied conditions, soils and localities for several years, until practically perfect, our aim being to produce, under the extremes of the American climate of heat, drought and cold, a **PERMANENT**, dense and deep-rooting turf that would yield year after year the maximum quantity of forage. These Grasses are of superior quality, inviting, sweet and nourishing, whether used as hay or pasture. That we have been successful is attested by the numerous letters of praise for these special Grass mixtures that we have received from the users, and the tributes to their merits published in many of the agricultural journals. Space permits us to print extracts from but a few of these encomiums.

In preparing these mixtures the greatest care is exercised in selecting such varieties as are suited to the soil to be sown and are likely to realize the object in view. **Therefore a description of the soil and climate, and the purpose for which sown, and if with or without a grain crop, should accompany each order.** Sow 3 bushels per acre. Full directions for sowing enclosed in every bag.

Price (purchaser paying carriage), \$2.75 per bu. of 14 lbs.; 50-bu. lots, \$2.65 per bu.; 100-bu. lots, \$2.60 per bu.



The Initial Cost is More in seeding with Henderson's Special Grass Mixture, **but** the ultimate returns are much more profitable than those from ordinary hay and pasture fields, and when the other advantages are considered—including the permanency of a maintained yield—the first expense will be found a paying and satisfactory investment.

Regarding Clovers

Do not omit to sow Clovers with the Grasses, as they add to the yield of hay and pasture, and by their ability to collect atmospheric nitrogen and store it in the root nodules, assist the growth of the Grasses and are of considerable benefit to subsequent crops.

Mixed Permanent Clovers, on account of their greater weight, should be sown separately, but at the same time as the Grasses. This Mixed Clover comprises White, Mammoth Perennial or Cow Grass, Alsike, etc. Sow 10 pounds per acre. **Price, 35c. per lb.; 10 lbs., \$3.25; 100 lbs., \$30.00.**

"I have been using Henderson's Special Grass Seed Mixture for Permanent Hay for several years and have had remarkable success with it."
H. L. BOWEN, Glasgow, Ky.

HENDERSON'S SPECIAL GRASS MIXTURE FOR
PERMANENT PASTURE
 SUPPLIES CONTINUOUS AND ABUNDANT PASTURAGE FOR 20 YEARS AND MORE



Provides Nourishing Forage from Early Spring until Winter Snows,
 and is Green and Succulent All Summer Long,
 When Ordinary Grazing Lands are Burned Brown

There is no more important part of a farm than a good pasture, and that can only be obtained by the use of the proper grasses, varieties that have different root formations and different habits and season of growth, in order to maintain a **rich, close turf throughout the entire season**. Timothy should never be used for pasture, because it will *not* stand trampling, and soon runs out when heavily pastured and at best is short-lived, as compared with the permanent grasses used in our Special Mixtures. These Mixtures contain over a dozen of the best permanent grasses, both American-grown and imported. All are permanent, and when once established **will last indefinitely**, if the fertility of the soil is kept up by occasional top-dressing. Owing to the different habits of growth, the grasses grow closer together and form a rich, close turf, covering the soil completely and forming a protection to the roots during hot, dry weather, **thereby enabling these grasses to maintain a rich green appearance when Timothy and other grasses are burned up**. The thick turf also prevents animals poaching through and destroying the pasture.

We have for years studied the subject of pastures and their formation with exhaustive tests on our own trial farms, where we have had growing separately and in different mixtures all the grasses of which seed can be procured in commercial quantities. These trials have been broadly studied and the results watched with critical interest on the farms of our customers. We are in an unrivalled position to advise you on the subject and to supply suitable grass seeds for Permanent Pasture. While it costs a little more to seed an acre with this special mixture, yet results are so superior and permanent that they more than offset the original cost. Sow not less than 3 bushels per acre. Directions enclosed in every bag. **PRICE, \$2.75 per bushel; of 14 lbs. 50 bushels @ \$2.65; 100 bushels @ \$2.60.** (State whether wanted for light, medium or heavy soils.)

Mixed Permanent Clovers, 10 lbs. sufficient to sow an acre. (See page 6.)
 Price, 35c., lb.; \$3.25, 10 lbs.; \$30.00, 100 lbs.

**DRY SUMMER, BUT IT FILLED
 OUT A FINE CROP**

"I sowed 2 acres with your Permanent Pasture mixture and am delighted with the quality. It was a very dry summer to start with and if it had been timothy would have been obliged to reseed, but it filled out a fine sod; cut a second crop when timothy cuts none."

W. E. HARRIS, East Douglass, Mass.

ONCE TRIED, ALWAYS USED

"I telegraphed you today to ship me enough Permanent Pasture Grass seed to sow 20 acres. About seven years ago I seeded a piece with your Pasture and Hay Mixture with wonderful results."

E. C. DUNCON, Clarkesville, Mo

**SEEDED 15 YEARS AGO—
 STILL LUXURIANT**

"Herewith is enclosed photograph taken in June, 1910, of Henderson's Permanent Pasture grass 15 years after seeding. (Photo shows luxuriant crop.)" JOHN B. MARCON,
 Woodside, Princeton, Mass.

**SPLENDID CROPS OF HAY
 FOR 8 YEARS**

"I wish to say that about 8 years ago I bought a large quantity of your Mixed Permanent Grass Seed, which has given us most splendid crops of hay every year since."

E. L. NEWBOLD, Irvine, Pa.



CUTTING A FIELD OF HENDERSON'S SPECIAL GRASS MIXTURE FOR PERMANENT HAY ON ESTATE OF PAUL D. CRAVATH, ESQ., LOCUST VALLEY, L. I.

HENDERSON'S SPECIAL
GRASS MIXTURE FOR

PERMANENT HAY

SUPPLIES A GOOD CROP OF

HAY

In Dry Seasons when Ordinary
Hayfields are Burned up**"I Have Had Remarkable Success"**

"Please quote me price on 120 bushels of Henderson's Special Grass Mixture for Permanent Hay. As you know I have been using this Special Mixture for several years and have had remarkable success with it. My intention is to have 120 acres in this grass by next fall. I am going to sow this 120 bushels on 40 acres."

H. L. BOWEN,
Glasgow, Ky.

Although the most widely cultivated hay grass in the United States is Timothy, or a mixture of Timothy and Clover, and while they answer the purpose admirably on farms where the soil is suitable and where the usual three and four years' rotation is carried on, yet there are many other grasses which will yield more profitable returns.

An acre of HENDERSON'S SPECIAL GRASS MIXTURE FOR PERMANENT HAY will yield double the quantity of an acre of Timothy and Clover, and the farmer whose land is sown with a proper mixture of Permanent Grasses, requiring only an occasional top-dressing of manure or fertilizer to MAINTAIN THEIR HEAVY CROPPING QUALITIES FOR TWENTY YEARS OR MORE, avoids the expense of the yearly plowing and cultivating, necessary in rotation cropping.

Hay yields very profitable annual returns at a minimum of labor and expense. The seed of these Permanent Grasses is more costly than Timothy, and more is required per acre, but by reason of their heavy cropping qualities and permanency they soon repay the extra cost and leave a handsome margin for the farmer, when the cost of plowing, harrowing and re-seeding Timothy every three and four years is taken into consideration.

The grasses used in this Mixture recover quickly after the hay crop is cut, and yield either a second crop or pasture in the greatest abundance during the summer and fall months. Within a few days after cutting, their rich green appearance as compared with Timothy is a desirable feature, especially in fields close to the house, as it gives a park-lawn effect to the surroundings. Sow 3 bushels per acre. Directions in every bag. Price, \$2.75 per bushel of 14 lbs.; 50 bushels @ \$2.65; 100 bushels @ \$2.60. (State whether wanted for light, medium or heavy soils.) Mixed Permanent Clovers, 10 lbs., sufficient to sow an acre. (See page 6.) Price, 35c. per lb.; \$3.25, 10 lbs.; \$30.00, 100 lbs.

Henderson's Renovating Mixture

FOR IMPROVING OLD PASTURES



Grass lands, in consequence of being constantly mown or pastured without being fertilized or manured, frequently become impoverished and deficient in the more valuable and nutritious grasses, and in time become unprofitable. It is frequently unnecessary to plow up such land unless it be full of weeds. The turf should be well harrowed with a sharp-tooth harrow, and, if possible, top-dressed with soil and well-rotted stable manure, which should be well harrowed in, and then sown with **HENDERSON'S RENOVATING MIXTURE**, at the rate of one bushel per acre, and five pounds of mixed

clovers. This mixture is composed of those sorts that are best suited for sowing on old pastures or meadows, and it **will speedily improve the quality and increase the produce.** March and April are the best months for sowing, choosing an interval between rains if possible, though, if inconvenient to sow then, very satisfactory results can be obtained by fall sowing. After sowing, the ground should be lightly harrowed and afterward well rolled.

Price, \$2.75 per bushel of 14 lbs.; 50 bushel lots, \$2.65 per bushel.

Mixed Clovers, 5 lbs. sufficient to renovate an acre. Price, 30c., lb.; \$3.25, 10 lbs.; \$30.00, 100 lbs.

HENDERSON'S SPECIAL
GRASS MIXTURE FOR

WOODLAND PASTURES



Unless there is a superabundance of nitrogen in the soil and a consequent excessive wood growth, in which case it is desirable to sow the land with grasses, it is now customary to sow orchards with cover crops, such as Cow Peas, Clover, etc. These are plowed under and the orchard kept in constant cultivation. But where it is desired to sow the orchard with grass, or for woodland pastures, even when the shade is comparatively dense, we can with all confidence recommend this mixture.

It is composed of a selection of grasses which from exhaustive experiments we have found will thrive under trees. Orchard Grass is, of course, one of the best grasses for the purpose, but this mixture is much superior, as it will make a closer and more even pasture than Orchard Grass alone.

Price, \$2.75 per bushel of 14 lbs.; 50 bushel lots, \$2.65 per bushel.

Henderson's Recleaned Grass Seeds

FOR FALL SOWING.

Special quotations for large Quantities.
Prices subject to variation.

Henderson's Superior Grass Seeds

are of high germination and of choicest, recleaned quality. Our warehouses (250,000 bushels capacity), being especially equipped with the most modern seed-cleaning machinery, enable us to supply Recleaned Grass Seeds of undoubted superiority at lowest possible prices when quality is considered. We are to-day the largest suppliers of recleaned grass seeds direct to the farmer, and if at times lower prices are quoted, depend upon it that it is at the sacrifice of quality, for we are so equipped that NO ONE CAN UNDERSELL US

FOR THE SAME QUALITIES.

At both the Pan-American Exposition
and the World's Fair we received

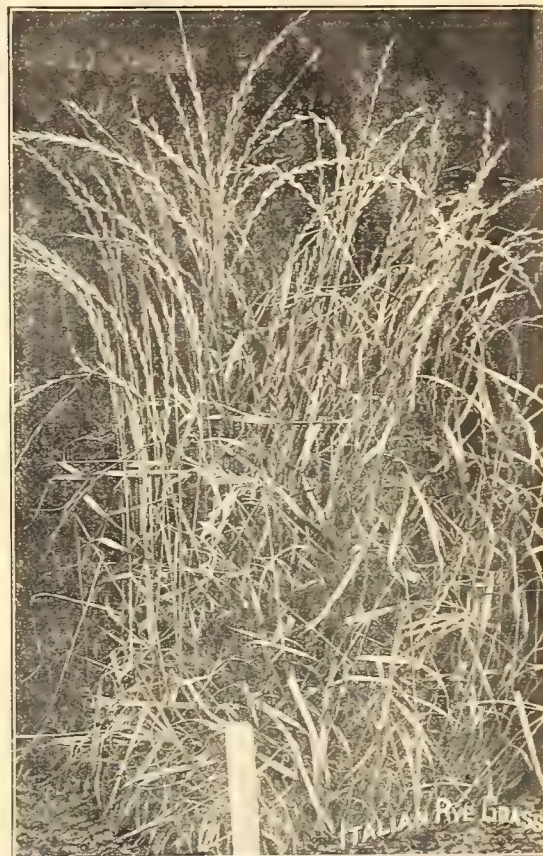
SIXTY-FIVE MEDALS AND AWARDS,
a large proportion of which were granted
to our Grasses and Clovers for superior
quality and purity of sample.

"After careful examination of samples from various sources and comparison of purity, germination and price, I have decided on ordering of you the greater proportion of grass seeds needed here at this time."

WM. P. BROOKS,
Amherst, Mass.



RED TOP.



ITALIAN RYE GRASS.

AWNLESS BROME GRASS. (*Bromus Inermis*.) A new forage plant of the utmost importance, particularly in dry and Southern sections; yields enormously

BERMUDA. (*Cynodon Dactylon*.) Valuable for Southern States, withstands the heat and drought

Canada Blue Grass. Useful for sowing on hard clay and poor soils

Creeping Bent Grass. (*Agrostis Stolonifera*.) Excellent for lawns; succeeds well in moist situations. About 2 bushels to the acre

Crested Dog's Tail. (*Cynosurus Cristatus*.) Should enter in moderate quantity in permanent pasture mixtures and lawns

ENGLISH RYE GRASS. (*Lolium Perenne*.) A valuable Grass. 2½ to 3 bushels to the acre

Fine-Leaved Sheep's Fescue. (*Festuca Ovina Tenuifolia*)

HARD FESCUE. (*Festuca Duriuscula*.) Dwarf, hardy grass, of great value for dry situations, indicates superior quality in hay

HUNGARIAN GRASS. (*Panicum Germanicum*.) Is a valuable annual forage plant. 1 bushel to the acre. Price variable. 10-bu. lots, \$4.40

ITALIAN RYE GRASS. (*Lolium Italicum*.) Unequaled for producing an abundance of early spring feed, giving quick and successive growths throughout the season

Johnson Grass. (*Sorghum Halapense*.) Of greatest importance for the South. Very tender and nutritious

KENTUCKY BLUE GRASS. (*Poa Pratensis*.) Very valuable for a variety of soils from moist to dry, furnishes delicious and luxuriant pasturage and makes excellent hay. Fancy or double extra clean

MEADOW FESCUE. (*Festuca Pratensis*.) Of great value for permanent pasture and hay, robust grower and nutritious

MEADOW FOXTAIL. (*Alopecurus Pratensis*.) Resembles Timothy, but of much earlier and more rapid growth, particularly valuable for permanent pastures and hay

ORCHARD GRASS. (*Dactylis Glomerata*.) One of the most valuable of all grasses, for either grazing or mowing, of early, rapid and luxuriant growth. (See cut.)

Red or Creeping Fescue. (*Festuca Rubra*.) Suitable for sandy sea-coasts and dry soils

RED TOP GRASS. (*Agrostis Vulgaris*.) Fancy recleaned silver seed

Rhode Island Bent Grass. (*Agrostis Canina*.) A very fine variety for lawns. About 3 bushels to the acre

Rough-Stalked Meadow Grass. (*Poa Trivialis*.) Valuable for pastures and meadows, particularly on damp soils. 1¼ bushels to the acre

SHEEP'S FESCUE. (*Festuca Ovina*.) Excellent for uplands and dry pastures, of close, dense and nutritive growth, relished by sheep

Sweet Vernal Grass. True Perennial. (*Anthoxanthum Odoratum*.) Very aromatic, giving hay a fine flavor

TALL MEADOW FESCUE. (*Festuca Elatior*.) Very early, nutritive and productive. Valuable on wet or clay soils

TALL MEADOW OAT GRASS. (*Avena Elatior*.) Recommended for soiling, being rapid and luxuriant in its growth. 4 to 5 bush. per acre

TIMOTHY. (*Phleum Pratense*.) We offer a particularly "choice" sample, ½ bushel per acre. Price variable

Various-Leaved Fescue. (*Festuca Heterophylla*.)

Wood Meadow Grass. (*Poa Nemoralis*.) Of early growth and thriving well under trees. 2 bushels to the acre

| Weight per bush. | Per bush. | Per lb. | Per 100 lbs. |
|---------------------|--------------|------------|-----------------|
| 14 lbs. | \$3.50 | \$0.26 | \$22.00 |
| 35 lbs. | | .75 | 70.00 |
| 14 lbs. | 2.50 | .20 | 15.00 |
| 20 lbs. | 11.50 | .60 | 55.00 |
| 21 lbs. | 7.50 | .40 | 35.00 |
| 24 lbs. | 3.00 | .15 | 10.00 |
| 14 lbs. | 8.00 | .60 | 55.00 |
| 12 lbs. | 4.50 | .40 | 35.00 |
| 48 lbs. | 4.50 | | |
| 18 lbs. | 2.50 | .15 | 12.00 |
| 25 lbs. | 4.00 | .18 | 15.00 |
| 14 lbs. | 3.00 | .25 | 20.00 |
| 22 lbs. | 4.50 | .22 | 18.00 |
| 7 lbs. | 4.40 | .65 | 60.00 |
| 14 lbs. | 5.25 | .40 | 35.00 |
| 14 lbs. | 5.25 | .40 | 35.00 |
| 32 lbs. | 9.00 | .30 | 25.00 |
| 14 lbs. | 8.00 | .60 | 55.00 |
| 14 lbs. | 8.00 | .60 | 55.00 |
| 12 lbs. | 4.50 | .40 | 35.00 |
| 10 lbs. | 6.50 | .70 | |
| 14 lbs. | 8.00 | .60 | 55.00 |
| 10 lbs. | 3.25 | .35 | 30.00 |
| 45 lbs. | 6.00 | .16 | 12.00 |
| 14 lbs. | 6.00 | .45 | 45.00 |
| 14 lbs. | 8.00 | .60 | 55.00 |



ORCHARD GRASS

Henderson's Superior Recleaned CRIMSON OR SCARLET CLOVER

A Boon to Agriculture—A Gold Mine on Your Farm—Valuable as a Pasture, Green Forage and Hay Crop and Most Valuable for Quickly Restoring Fertility to Worn-Out Soils

The importance of this Annual Clover is realized more and more every year, not only as a pasture, green forage and hay crop, but as a cover crop and soil renovator. While it grows most luxuriantly on fertile loam, yet it will thrive better on thinner and poorer soils than Red Clover and is more efficient for green manuring than the latter.

Crimson Clover forms an upright branching plant 1 to 2 feet in height, according to soil, locality and season. It roots very deeply and is a bountiful provider of nitrogen.

As Hay—Cut when coming into full bloom, not later—and properly cured—it is even superior to Red Clover, is more nutritious, richer in protein and especially adapted for growing and working animals. The yield of cured hay on average soils is 2 to 3 tons per acre, on lighter soils less and on heavier, richer soils, phenomenally large crops have been produced.

For Green Forage and Silage it is of high feeding value, especially for dairy stock and is much relished by them. The average yield cut green before the flowers commence to mature is 8 to 15 tons per acre, though up to a 20-ton yield per acre is sometimes reported.

As Pasture Crimson Clover makes one of the best early spring pastures, supplying an abundance of nutritious herbage for several weeks if stock is turned on it when about 6 inches high.

As a Green Manuring Crop Crimson Clover is of the greatest value, particularly as its season of growth permits it to be sown in summer or early autumn after a grain or vegetable crop has been removed and then be plowed under the next spring. Thus it does not in any way interfere with other crops.

Plowing under a good crop of Scarlet Clover is equivalent to 20 tons of stable manure per acre, and even if the Clover be harvested or pastured, the benefits derived from the wonderful nitrogenous root formation will alone many times repay the cost of seed and labor.

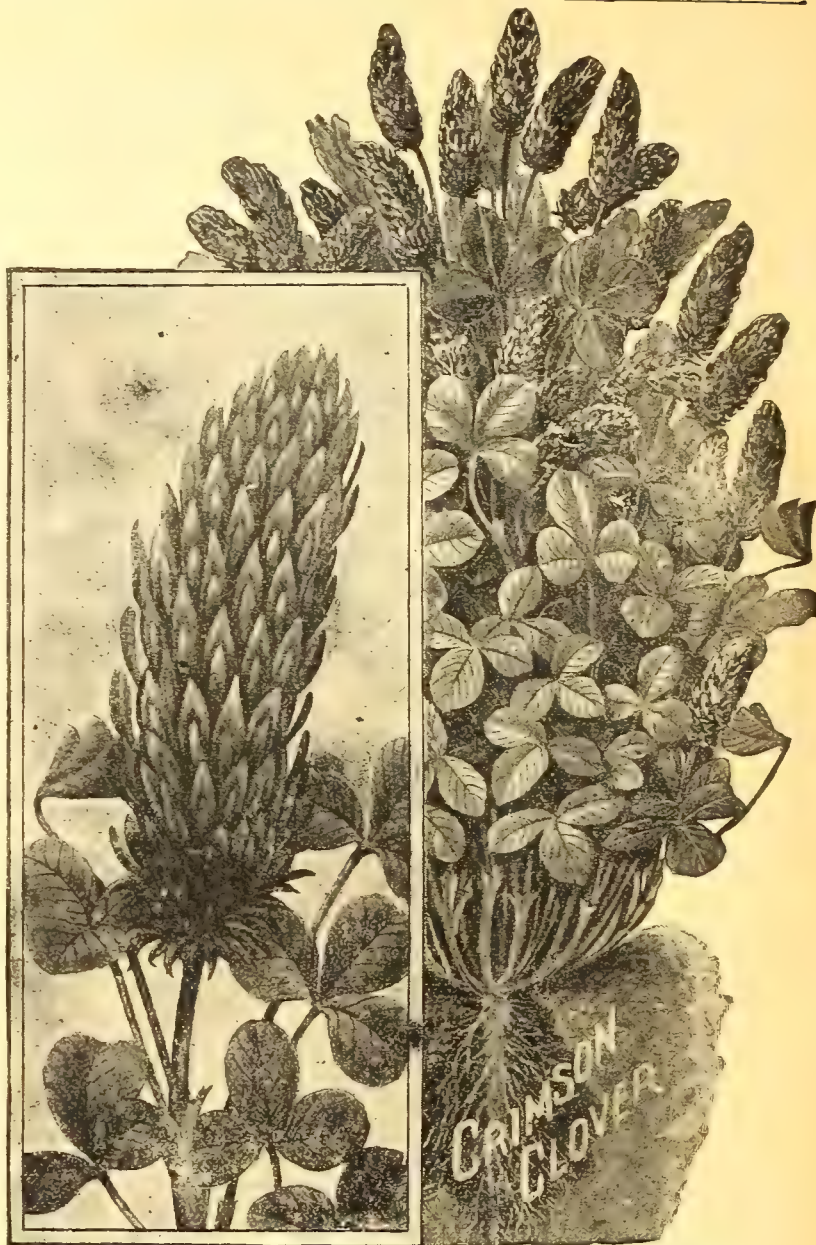
It is the cheapest source of nitrogen, and has revolutionized the methods of farming in many States, has restored to profitable cultivation thousands of acres of poor land.

As a Cover Crop and winter soil mulch it is peculiarly well adapted. It may be sown among corn, tobacco, sorghum and other crops after the last cultivation and when the primary crop is removed the Crimson Clover will come on and cover the ground fall, winter and early spring. It is one of the best cover crops for orchards and small fruits, and also one of the best sources of nitrogen for them.

Harvesting and Feeding. Crimson Clover should not be fed either cured or green after the flowers begin to mature for the hairs of the calyx then begin to stiffen and harden and are apt to form troublesome "hair balls" in the stomachs of animals.

Seeding. Sow at the rate of 15 pounds of seed per acre, either broadcast or drilled. Cover lightly with a harrow. If sown too early, especially in Southern States, Crimson Clover is apt to mature and form seeds the same season without making full growth. In the latitude of New York City sow from July 15 to September 15, and in the South as late as October.

Price.—Henderson's choicest new Crop Crimson clover seed of highest growing quality, thoroughly recleaned and free from weed seeds. (See cut). 22 cts. lb., \$11.00 bushel of 60 lbs., \$18.00 per 100 lbs.



RED CLOVER. (*Trifolium pratense*)

Price, (subject to change without notice) Henderson's Superior Sample (extra recleaned), 28c. lb., \$15.00 bushel of 60 lbs., \$24.00 per 100 lbs.

MAMMOTH OR PEA VINE RED CLOVER.

(*Trifolium pratense perenne*)

Quite distinct from the common Red Clover, being of larger and coarser growth. Valuable for reclaiming exhausted lands. Sow (if alone) about 12 lbs. per acre; weight, 60 lbs. per bushel. Henderson's Superior Sample (extra recleaned). Price, 30c. lb., \$15.50 per bushel, \$25.00 per 100 lbs.

ALSIKE OR HYBRID CLOVER.

(*Trifolium hybridum*)

A hybrid intermediate in growth and appearance between Red and White Clovers. It is a perennial and one of the hardiest of all clovers, thriving particularly well in cool climates and stands freezing well. It is valuable for sowing with other grasses and clovers as it forms a thick bottom, increasing the yield of hay.

Sow (if alone) 8 lbs. per acre; weight, 60 lbs. per bushel. 30c. lb., \$15.50 bushel, \$25.00 per 100 lbs.

WHITE DUTCH CLOVER.

(*Trifolium repens*)

A very hardy creeping variety, which accommodates itself to a great variety of soils, but grows most luxuriantly in moist ground or in wet seasons. It is valuable in mixtures for permanent pastures and lawns. Sow (if alone) 8 lbs. per acre; weight, per bushel, 60 lbs. 65c. per lb., \$36.75 per bushel, \$60.00 per 100 lbs.

CLOVERS AND HOW TO GROW THEM.

A Splendid Book on the Subject by THOMAS SHAW

Price, \$1.00 Postpaid



ALFALFA OR LUCERN TRUE AMERICAN-GROWN

YIELDS GOOD CROPS IN ALL SECTIONS OF THE UNITED STATES AN EFFICIENT HAY-PRODUCER AND SOIL-ENRICHER

It has been well said that if "Corn is king," Alfalfa is the "queen of forage plants." That this fact is being brought home to the farmers of the North and East, is indicated to us by the enormous increase in our sales of HENDERSON'S RE-CLEANED ALFALFA SEED.

Yet Alfalfa growing in the Northeast is only in its infancy and we predict, in the near future, a vast increase in the acreage devoted to its cultivation. **Alfalfa is a true leguminous plant, and a perennial, staying on the land for many years. It sends down its long tap-roots into the subsoil, whatever depth that may be—five, ten, twenty, or even thirty feet, and utilizes the plant foods contained therein.** It is a great soil-enricher, for the nodules on its roots are the home of bacteria that extract the nitrogen from the air and transform it into a valuable fertilizing element. For this purpose it is superior to any other plant, because in addition to the nitrogen gathered from the air, its deep tap-roots bring up other mineral constituents from the lower layers of soil, to be utilized later by shallow feeding crops. **It has been calculated by competent authority that the amount of fertilizer, that will come from an acre of good Alfalfa is equal to what the farmer would pay \$60.00 for, if purchased by the bag.** As a hay-producer it surely has no equal when once established, as from three to four cuttings may be had in a season, according to conditions, totalling four to six tons per acre.

THE FEEDING VALUE OF ALFALFA

is very high, being very rich in protein—which builds up blood, muscle and bone in growing animals. Corn and its fodder, and most other farm crops, are rich in carbo-hydrates, the fat-forming element, but deficient in protein, so that Alfalfa is the best crop to balance up the fat-forming feeds. Corn and Alfalfa form the ideal food for fattening all farm animals, one supplementing the other. Alfalfa and Barley, Alfalfa and Wheat, or Alfalfa and Oats are all excellent combinations. The diagram on this page shows the percentage of nutrients in an acre of Alfalfa, compared with those in four other principal foods.

Alfalfa naturally prefers a rich, loose limestone soil with a porous subsoil; but it also grows and thrives on a variety of soils, and in many different climates. Briefly there are three essentials—the land must be drained if wet, it must be sweetened with lime if acid, and there must be humus and nitrogen in the soil, which may be easily supplied by barnyard manures, or green crops plowed under. When lime is not present in the soil, it must be supplied, the amount used being 1 ton of quicklime, or 2 tons of

ground limestone per acre. The preparation of the seed-bed is important, and the best growers disk and harrow the land before plowing, thus preparing a seed-bed and turning it under, while with a single plowing the bottom would be cloddy, loose and not connected with the soil below the furrow. A firm connection is necessary to permit the capillary rise of water which encourages rapid germination, enables the young roots to push through the firm soil, and thus promote the rapid growth, and establishment of the plants. Alfalfa requires little attention the first season unless there is a growth of twelve inches or more before cold weather. This should be clipped back to eight inches or so and will then be in a good condition for wintering. Full cuttings can be taken off the following summer and fall. The crop should be cut when the plants are about one-tenth in bloom, being at that stage much more digestible than when older.

The time to sow in the North and Eastern States is June, July or August, 30 to 40 lbs. per acre if broadcasted or 25 to 30 lbs. if drilled in; in the South sow in February or September. (See cut.)

Price, Henderson's Superior Alfalfa Seed, 34c. per lb.; \$18.50 per bushel of 60 lbs.; \$30.00 per 100 lbs.

TIMOTHY

1½ Tons
(3,000 lbs.)
per acre
Digestible
Nutrients
46% equal
1380 lbs.

CLOVER

2 Tons
(4,000 lbs.)
per acre
Digestible
Nutrients
46% equal
1840 lbs.

SHELLED CORN

60 Bus.
(3,360 lbs.)
per acre
Digestible
Nutrients
80% equal
2688 lbs.

CORN SILAGE

12 Tons
(24,000 lbs.)
per acre
Digestible
Nutrients
16% equal
3840 lbs.

ALFALFA

4 Tons
(8,000 lbs.)
per acre
Digestible
Nutrients
53% equal
4240 lbs.

Digestible nutrients of five principal feeds on one acre

Write for our new pamphlet "ALFALFA ON NORTHERN FARMS" free to all applicants

THE TRUE DWARF ESSEX RAPE

PROVIDES PERFECT PASTURE AND
IS GREATLY RELISHED BY ALL STOCK

INDISPENSABLE for SHEEP and HOGS

Sow in the North from April to end of August
in the South during September and October

In the United States we have millions of acres of good land that annually lie idle or run to weeds the latter part of the season, after the grain, potato and hay crops have been harvested, a large portion of which might be made to produce one of the finest feeds imaginable, and in the greatest abundance, at a time when cattle, sheep and hogs are roaming through bare pastures in search of a scanty living. Under favorable conditions it is ready for pasturing sheep or cattle within six weeks from time of sowing, and on an average one acre will carry twelve to fifteen sheep six weeks to two months. When on the Rape they should at all times have access to salt; but water is not necessary. There are several varieties of Rape, but care should be taken to procure the DWARF ESSEX, or English, as it is sometimes called, which does not seed the same season as sown, unless in some exceptional cases, as when sown too early and the young plant is touched by frost. In northern States it should be sown from April to end of August for fall pasturing, but as it thrives best in cool weather, it should not be sown in the Southern States until September or October for winter pasture. In the latitude of New York it should be sown in April, or in July or August. Its fattening properties are probably twice as good as those of Clover, and for sheep the feeding value of Rape excels all other plants we know of. At the Michigan Experiment Station 128 lambs were pastured for eight weeks on 15 acres of Rape sown in July, and showed a gain of 2,890 lbs., or at the rate of 3 lbs. per lamb each week. Even so far South as Alabama it has proved a boon to the farmer. In a recent bulletin published by the Alabama Experiment Station they state: "Quality of product good for both hogs and cattle. The growth was enormous. By repeated sowings it will and did carry more hogs through our dry,



hot summers than four times the amount of land planted in anything else ever grown here. I would recommend it to all Southern farmers." To secure the best results, the Rape should be sown in drills. Sow 4 lbs. per acre broadcast, 2 to 3 lbs. per acre on drills. (See cut.)

Price, 18c. per lb.; \$8.00 per bushel of 50 lbs.; 100 lbs., \$15.00.



SAND or WINTER VETCH (Vicia Villosa)

Though it succeeds and produces good crops on poor, sandy soils, it is much more vigorous on good land and grows to a height of 4 to 5 feet. It is perfectly hardy throughout the United States, remaining green all winter, and should be sown during August and September, mixed with Mammoth Red Clover, in sections where it will not winter-kill, or with Rye, which serves as a support for the plants; or in spring with Oats or Barley.

It is the earliest crop for cutting, being nearly a month earlier than Scarlet Clover, and a full crop can be taken off the land in time for planting spring crops. Being much harder than Scarlet Clover, this is the Forage Plant to sow in the Northern States, where Scarlet Clover winter-kills, though it is equally valuable in the South. Every dairyman and stockbreeder in the United States should have a field of it, and if you try it once you will never be a season without it.

It is exceedingly nutritious, much more so than Clover, is eaten with relish and may be fed with safety to all kinds of stock.

It will also prove valuable for a Hay crop in the South and dry Western regions, as it may be sown in the fall and will make a luxuriant growth during the fall and spring months, and will yield a heavy crop, which may be cut and stored before the droughts set in.

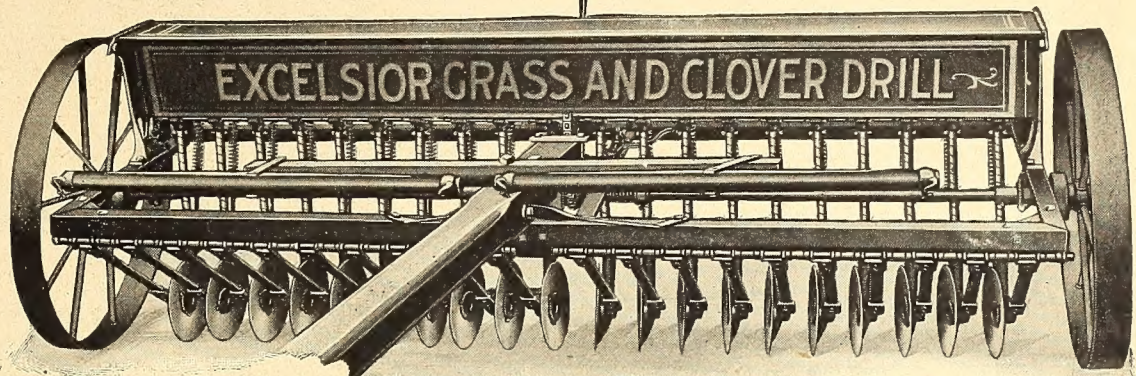
Sow one bushel per acre with one-half bushel of Rye or Wheat. (See cut.)

Price, 24c. per lb.; \$12.50 per bushel of 60 lbs.; 100 lbs., \$20.00.

ONE- AND TWO-HORSE POWER "Excelsior" Grass and Clover Seed Drills

For Re-Seeding Sod Land, Drilling Clover in Winter Wheat, Alfalfa, Etc.

They put the seed in either
NEW GROUND
OR OLD SOD
Without plowing

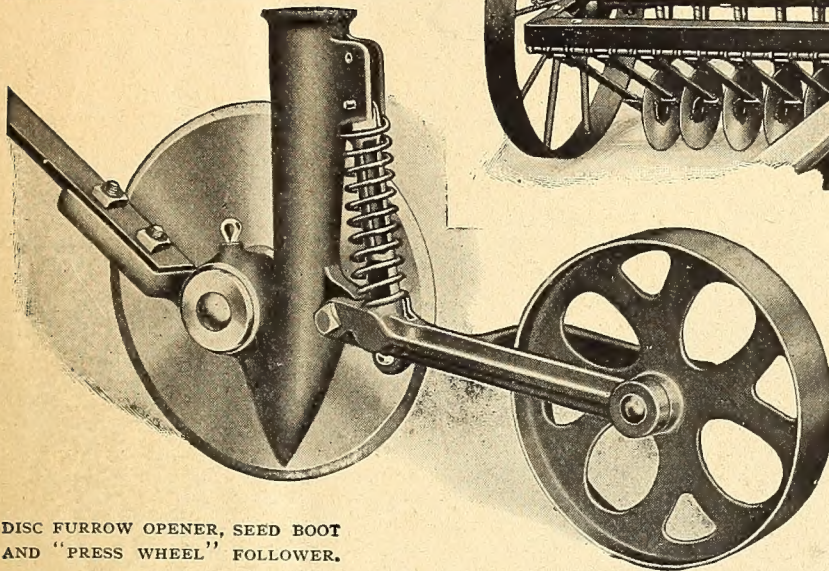


THE TWO-HORSE EXCELSIOR GRASS AND CLOVER DRILL.

The "EXCELSIOR" Grass and Clover Seed Drills

For Drilling in

GRASS SEED, CLOVER, ALFALFA,
TIMOTHY, MILLET, RAPE, FLAX, Etc.



DISC FURROW OPENER, SEED BOOT
AND "PRESS WHEEL" FOLLOWER.

These valuable new machines involve new principles in seeding, whereby the seed is put IN the ground whether freshly prepared—or old sod that needs replenishing without replowing or they will drill clover seed in winter wheat without injuring the latter. The seed is evenly distributed, wind or no wind, much or little as may be desired, and at any required reasonable depth according to how the machine is adjusted by the operator. The even distribution of the seed and its uniform depth insures an even stand—not too thick in some places and too thin in others. The illustration on the left shows how the above claims are accomplished. The revolving steel discs cut a narrow gash or trench in the ground or sod—the seed is forced through the "boot" the spout of which directs the seed into the trench when at its deepest, immediately under the rear of the cutting discs, the roller then follows, closing up the gash and of course covering the seed. As each disc, seed spout and roller work individually they therefore adapt themselves to inequalities of the ground, insuring a perfect stand, and the cutting (not tearing) of the old sod or wheat in this way has proven beneficial, a sort of a cultivation that relieves the hide bound condition. The machines have "force feeds" one to each disc and seed spout—every feed sows an equal amount of seed and a gauge regulates the quantity sown whether the machines are going fast or slow. The flow of seed can immediately be shut off by moving a lever.

The seed must grow because it is IN the ground and not on top of it. No seed is wasted. Birds can not get it, rain cannot wash it nor wind blow it away.

The discs are set at just the right angle for grass, clover and alfalfa seed, for the reason that they make narrow seed trenches and thoroughly pulverize the soil. They cultivate, but do not uproot the wheat plants in drilling clover in winter wheat.

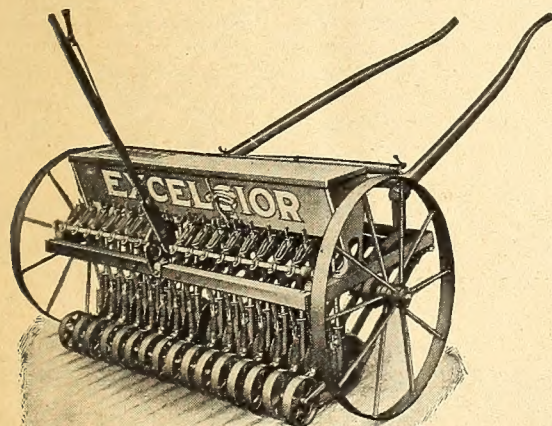
"VELVETLAWN" Grass and Clover Drills have positive Force Feeds and the arrangement is such that the operator can sow in fractions of pounds, if he so desires. By means of the clutch, the Feeds may all be thrown out of commission and the discs can remain in the ground, and the machine be used as a disc cultivator.

Every Press Wheel tracks in the furrow. These Press Wheels pack the earth just right to conserve the moisture.

On the two-horse Drill the discs are set four inches apart and on the one-horse Drill the discs are three inches apart. By means of covers, which are furnished at a slight additional cost, the seed can be drilled in any multiple of three inches on the one-horse Drill and in any multiple of four inches on the two-horse Drill. For instance on the latter there are twenty discs, four inches apart, therefore the seeding width is 76 inches. Thus the seed can be drilled in rows either 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, or 76, inches apart. The one-horse Drill has sixteen discs set three inches apart and will drill in rows either 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, or 45 inches apart.

The Two-Horse Excelsior Grass and Clover Drill has 20 single discs, set four inches apart, and is furnished complete with two-horse hitch and neckyoke. The steel wheels have staggered spokes, with broadfaced 3-inch tires. The frames are of highest grade angle steel, thoroughly braced and reinforced. The hoppers have large carrying capacity. Two small horses handle this machine with ease. Ratchets in both wheel hubs. Steel Ribbon Conductor Tubes. Weight for shipment 725 lbs. Price net with press wheels, \$75.00.

The One-Horse Power "Velvetlawn" Seeder has 16 discs with accompanying seed spouts and rollers. These sow 3 inches apart or a strip four feet wide. It is very light in draft and can be operated by any boy who can drive a horse. Shipping weight 505 lbs. Price net with press wheels \$55.00.



ONE-HORSE EXCELSIOR GRASS AND CLOVER DRILL.

Send for our "Implement Catalogue," Which Illustrates and Describes all The Latest Hand and Horse Power Tools and Implements

The "HENDERSON" LAWN GRASS Seed

SOWN IN THE FALL

The Highest Awards IN THE GIFT OF THE JUDGES HAVE INVARIABLY BEEN WON BY THE LAWNS MADE WITH THE "Henderson" Lawn Grass Seed

at the various international exhibitions held in the United States, notably the Centennial at Philadelphia, the World's Fair at Chicago, the Pan-American Exposition at Buffalo, the Lewis & Clark Exposition, Portland, Ore., and the Jamestown Exposition at Norfolk, Va.

At all these great industrial congresses, it has been our privilege to furnish the emerald setting for many of the beautiful edifices designed by the great architects of the world. The brilliant color scheme adopted for these buildings—white, red and yellow—made these spacious green lawns most acceptable and restful to the eye, attracted the attention of every visitor and helped to make The "Henderson" Lawn Grass Seed famous throughout the country. As usual at all these great undertakings everything was delayed to the last moment, and we were required to produce the lawns in a few weeks' time. We successfully accomplished this in from four to five weeks and as the superintendent of grounds at Jamestown Exposition remarked "It was a miracle in lawn making." We have been awarded numerous Gold Medals, Blue Ribbons and Diplomas, but far more than these we value the good opinions and enthusiastic praise contained in the thousands of letters we have received from customers in almost every state of the Union.

The quantity required for new lawns is 5 bushels per acre. For a plot 15x20, or 300 square feet, use 1 quart. For renovating old lawns, use one-fourth to one-half of above quantities.

Full instructions in every bag and package.

DELIVERED FREE IN THE U. S.

(By Mail, Express or Freight, at our option.)

30c. quart, \$1.00 for 4 qts., \$1.75 peck, \$6.00 bush. of 20 lbs.



The Fall Season IS ESPECIALLY FAVORABLE TO THE GROWTH OF YOUNG GRASSES

and the
MOST BEAUTIFUL
LAWNS IN AMERICA
are made by sowing at this time the

"Henderson" Lawn Grass Seed

At this season the seeds have the benefit of thoroughly warmed ground and a copious rainfall, which hasten germination and enable the young grasses to become firmly established before winter sets in. Then, on the opening of spring, the grasses immediately recommence their growth, take full possession of the ground, and prevent weeds from obtaining a foothold. A lawn grown in this way will endure summer drought much better than a spring-sown lawn.

The "Henderson" Lawn Grass Seed has been thoroughly tested by country-wide use, for more than half a century.

It is the fruit of years of experience and close study of American conditions, and is undoubtedly the best for the American climate. It is composed of fine-leaved, dwarf, evergreen grasses, which produce a closely interwoven, firm, deep and elastic turf, that will maintain from year to year a covering of enduring green. Such results can only be obtained by sowing a combination of grasses, which arrive at their best during different months of the year, so that the lawn is perpetually covered with verdure. It is impossible to make a good lawn by sowing seeds of a single variety such as Kentucky Blue Grass for example, which grows very sparsely in midsummer. Only by sowing an intelligently arranged combination of grasses, can a permanent green sward be maintained.

The "Henderson" Lawn Grass Seed is in reality as cheap as any other, notwithstanding its superior quality. For while many mixtures on the market weigh only 14 lbs. to the bushel, the "Henderson" Lawn Grass Seed weighs 20 lbs. per measured bushel, being entirely free from chaff and other foreign matter.

PRODUCES ENDURING TURF WHICH WITHSTANDS SUMMER DROUGHTS